

REMARKS

In the Office Action mailed 4/5/01, Claims 1-20 were cancelled. Claims 21-40 were rejected as being anticipated by the prior art under 35 U.S.C. §102(b), as well as being obvious over the prior art under 35 U.S.C. § 103.

In response, Applicant has amended Claims 21-22, 29-30, 34-35 and 38-40 in order to clarify the scope of the claims. As amended, it is Applicant's respectful opinion that all grounds for rejection have been overcome, as discussed below.

Patentability of Claims 21-40 (as amended)

These claims stand rejected under both 35 USC§102 §103. Applicant respectfully traverses these rejections for the reasons set forth below in the form of a discussion of the disclosures of the two references cited.

Kohler, U.S. Patent No. 5,115,236

Applicant incorporates all previous arguments by reference, and further, in response to the Examiner's comment number 6, Applicant has herein amended the appropriate claims to include the limitation of the receiver not only "detecting" an essentially IrDA-compliant signal, but also "interpreting" the detected incident infrared signal as being essentially IrDA-compliant. Since (as Applicant believes that the Examiner has admitted) Kohler fails to disclose or recite a system where the signal content is interpreted, and each and every element of Applicant's invention is not disclosed, and therefore Kohler does not anticipate

Applicant's claimed invention.¹ Furthermore, it is Applicant's respectful position that this result is consistent with the telephone interview conducted by Applicant's attorney with the Examiner on 25 January 2001. As such, Applicant respectfully asserts that the §102(b) grounds for rejection have been overcome.

Selin, EP 0 772 307 A1

Selin is a "Communication Protocol for half-duplex traffic," specifically related to "a communication protocol with the aid of which a half-duplex type data transfer link is arranged between two device." *Abstract* In the disclosed Selin protocol, "a certain time is defined, after which the devices can be switched to sleep mode if no traffic has been detected. While in sleep mode the receiver of each device is switched on for a period of time T2 when a check is made whether the other device is transmitting." *Column 9, lines 44-49*. "The monitoring periods T2 are repeated at intervals determined by time T1." *Column 9, lines 49-50*. "A transmitting device which wants to wake up a receiving device in sleep mode, first transmits a certain wake-up signal, which in the preferred embodiment consists of so-called synchronization pulses for a period of time T3 followed by a pause of duration T4. In order that the wake-up signal cannot fall between two successive monitoring periods T2 of the receiving device, the period T3 is preferably longer than the period (T1-T2) between the monitoring periods." *Column 9, line 54 – Column 10, line 4*.

A device in the Selin "sleep mode," then, is in a low-power-demand state from which it periodically (after time T1 elapses) switches to a "monitoring mode" for period T2

¹ See e.g., *Innovative Scuba Concepts Inc. v. Feder Indus.*, 819 F. Supp 1487, 27 USPQ 2d 1254, 1263 (D. Colo. 1993).

to see whether or not another device is transmitting. Since the transmit period (for the transmitting device) T3 is disclosed as necessarily being longer than the period between monitoring periods, it is clear that during time T1 (i.e. between monitoring periods) the Selin device has no capability to receiving or interpret signals from the transmitting device.

An outline of the Selin protocol might look like this:

1. Device switches to sleep mode; receiver is non-operational for time period T1; and
2. While in sleep mode, device switches on receiver for monitoring period T2; and
3. If no "wake-up signal" is received during monitoring period T2, repeat Step 1; or
4. If "synchronization pulses" are detected during monitoring T2, then device switches to "active mode" until "the link is in idle mode and there is no need to send control messages," after which device returns to sleep mode (step 1).

In contrast, an outline of the "protocol" of the present invention would look like this:

- A. Device switches to sleep mode; receiver is operational in a low-power-demand state to detect and interpret IrDA discovery signals; and
- B. If an incident infrared signal is interpreted to be an essentially IrDA-compliant "discovery signal," then the device transceiver system switches to full power mode.

Clearly, the Selin protocol, device operation and design is not the same as Applicant's. There are two critical differences: (1) the Selin "sleeping" device has no continuous receive capability, whereas Applicant's device does; and (2) the Selin "sleeping" device requires a "synchronization pulse" to "wake up," where Applicant's device requires an IrDA "discovery signal." The first difference makes the Selin protocol less useful because it builds in an additional delay in waking up as compared to Applicant's system. The second difference makes the Selin protocol less useful because it requires a proprietary synchronization pulse in both the transmitting and the sleeping devices in order to function; Applicant's "sleeping" device can be "woken up" by a standard IrDA-compliant transmitting device.

Since Selin made the design choice that resulted in these two differences from Applicant's system and device, it is clear that Selin actually teaches away from Applicant's novel and nonobvious device and method, and therefore neither Kohler, nor Selin, nor the combination suggest or hint at each and every element of Applicant's claimed invention.² Still further, there is no suggestion for combining or altering these references; absent some affidavit from the Examiner regarding his personal knowledge (if this was the source of the suggestion to combine or alter), this burden has not been met³ Consequently, the §103(a) rejections must be withdrawn.

² *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 221 USPQ 1025, 1031 (Fed. Cir. 1984); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1569, 219 USPQ 1137, 1140 (Fed. Cir. 1938).

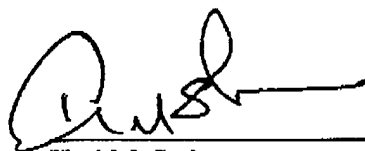
³ See *In re Geiger*, 815 F.2d 686, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987).

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests that the application be reconsidered, the claims be allowed, and the case passed to issue.

Respectfully submitted,

STEINS & ASSOCIATES

A handwritten signature in black ink, appearing to read 'K. Steins', written over a horizontal line.

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Clean Copy of Amended Claims

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1 21. A device for reducing power consumption in infrared-enabled appliances having a power
2 supply and transceiver system forming a circuit including a switch, comprising:

3 a discovery signal receiver and power actuator module, said module configured to
4 interpret and recognize incident Ir discovery signals and activate said switch responsive to said
5 interpretation and recognition, where the incident discovery signals are essentially IrDA
6 compliant.

1 22. The device of Claim 21, wherein said discovery signal receiver and power actuator module
2 further comprises:

3 an infrared receiver; and

4 discovery signal detection circuitry configured to interpret and recognize infrared
5 discovery signals incident to said receiver and responsively emit a power-up signal to said
6 switch.

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1 29. A system for reducing power consumption in infrared-enabled appliances having at least one
2 power supply and at least one transceiver system forming a circuit, comprising:

3 a low power standby module for detecting incident infrared signals and interpreting said
4 incident signals that are essentially-IrDA-compliant Ir discovery signals, said circuit being
5 responsive to said low power standby module.

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1 34. The system of Claim 32, wherein said power-up signal is generated by said low power
2 standby power module in response to said detection of an incident infrared signal and
3 interpretation of said signal as being an essentially-IrDA-compliant infrared discovery signal.

1 35. A method for reducing power consumption in infrared-enabled appliances having a power
2 supply and a transceiver system forming a circuit, comprising:

3 powering down said transceiver system to a low power standby state;

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cont.

4 detecting at least one incident [essentially IrDA-compliant Ir discovery signal]infrared
5 signal;

6 interpreting said at least one incident infrared signal as being an essentially IrDA-
7 compliant discovery signal and

8 powering up said transceiver system to a full power state.

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1 38. The method of Claim 36, wherein said detecting and interpreting is performed by a discovery
2 signal receiver and power actuator module.

1 39. The method of Claim 38, wherein said detecting and interpreting is performed by a discrete
2 discovery signal receiver and power actuator module.

1 40. The method of Claim 38, wherein said detecting and interpreting is performed by a discovery
2 signal receiver and power actuator module that is integral to said transceiver system.
